

Nos. 2022-1904, 2022-1925

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

OPTIS CELLULAR TECHNOLOGY, LLC, OPTIS WIRELESS TECHNOLOGY, LLC,
PANOPTIS PATENT MANAGEMENT, LLC, UNWIRED PLANET INTERNATIONAL
LIMITED, UNWIRED PLANET, LLC,

Plaintiffs-Cross-Appellants,

v.

APPLE INC.,

Defendant-Appellant.

On Appeal from the United States District Court for the Eastern District of Texas
in Case No. 2:19-cv-00066, Judge James Rodney Gilstrap

**RESPONSE AND REPLY BRIEF FOR
DEFENDANT-APPELLANT APPLE INC.**

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CERTIFICATE OF INTEREST

Counsel for Defendant-Appellant Apple Inc. certifies the following:

1. Represented Entities. Fed. Cir. R. 47.4(a)(1). Provide the full names of all entities represented by undersigned counsel in this case.

Apple Inc.

2. Real Party in Interest. Fed. Cir. R. 47.4(a)(2). Provide the full names of all real parties in interest for the entities. Do not list the real parties if they are the same as the entities.

None.

3. Parent Corporations and Stockholders. Fed. Cir. R. 47.4(a)(3). Provide the full names of all parent corporations for the entities and all publicly held companies that own 10% or more stock in the entities.

None.

4. Legal Representatives. List all law firms, partners, and associates that (a) appeared for the entities in the originating court or agency or (b) are expected to appear in this court for the entities. Do not include those who have already entered an appearance in this court. Fed. Cir. R. 47.4(a)(4).

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5. Related Cases. Provide the case titles and numbers of any case known to be pending in this court or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal. Do not include the originating case number(s) for this case. Fed. Cir. R. 47.4(a)(5). *See also* Fed. Cir. R. 47.5(b).

Optis Cellular Technology LLC v. Apple Retail UK Ltd., No. HP-2019-000006 (Eng. High Ct. of Justice)

6. Organizational Victims and Bankruptcy Cases. Provide any information required under Fed. R. App. P. 26.1(b) (organizational victims in criminal cases) and 26.1(c) (bankruptcy case debtors and trustees). Fed. Cir. R. 47.4(a)(6).

None.

Dated: June 20, 2023

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REPLY FOR APPLE’S APPEAL

Before replying regarding Apple’s appeal, Apple informs the Court of a late-breaking development. Optis’s First Amended Complaint noted that Optis contemporaneously filed an action in the United Kingdom requesting “a determination as to the FRAND license terms in respect of Plaintiffs’ worldwide portfolio (the ‘UK FRAND Proceedings’),” and stating that “the UK FRAND Proceedings will determine FRAND terms for Plaintiffs’ worldwide portfolios.” Appx4996(¶144). Optis assured the district court that its request for declaratory judgment here “should be subordinate to the UK FRAND Proceedings” “to the extent necessary to avoid any duplication or inconsistency.” Appx4996(¶146). On June 7, 2023, the UK court issued a redacted version of a confidential judgment declaring that Apple was entitled to a “worldwide licence, covering the entirety of [Optis’s] Portfolio”—including the five patents-in-suit—for a total payment of \$56 million plus interest, which “is closing out any claims against Apple, whether for past or future infringement,” such that “any proceedings anywhere in the world by Optis against Apple in respect of the Portfolio should cease.” *Optis Cellular Technology LLC v. Apple Retail UK Ltd.*, [2023] EWHC 1095 [¶503] (Eng.). The UK court’s determination of FRAND terms for Optis’s entire claimed-essential portfolio confirms the excessiveness of the jury’s damages award—if the liability verdict were proper. Once the U.K. first-instance court finalizes a global license

and its final order, which Apple expects within months, Apple will seek appropriate relief from this Court.

Meanwhile, the judgment here is infirm. Optis failed to prove liability with respect to each asserted patent, and a series of flawed evidentiary rulings undermined the damages award.

Moreover, the verdict form's use of a single undifferentiated infringement question covering all five patents—whether “Apple infringed **ANY**” of them—raised three intractable problems. First, it denied Apple's right to jury unanimity, because the first jury could have answered “yes” without agreeing on any particular patent. Second, the retrial jury could not know which patents the first jury found infringed. Only a new trial on liability and damages can correct that fatal mismatch between the infringement and damages verdicts.

And third, even if the single infringement question did not require vacatur on its own, it would require full vacatur if the Court finds error regarding even one patent, because the Court cannot determine whether the infringement verdict rested on an erroneous or unsupported theory. Even Optis concedes that, if liability cannot be sustained as to any one patent, damages must be retried.

I. LIABILITY

A. The Verdict Form Denied Apple's Right To Unanimity

Apple showed that a new trial is required because the verdict form did not require the first jury to unanimously agree on each patent. Apple Br. (“AB”) 9-11. Contrary to Optis’s argument, nothing in the jury instructions or elsewhere in the verdict form cured this error. Instructing the jury “that its *answers* must be unanimous,” Optis Br. (“OB”) 14,¹ only reinforced the problem: the jury “answer[ed]” only one infringement question: whether Apple infringed “**ANY**” patent, Appx101 (emphasis original). As Apple explained (AB10-11), the jurors could have answered “yes” even if they disagreed on *which* patents were infringed. Second, instructing that “[i]nfringement is assessed on a claim-by-claim basis,” Appx1187-1188; OB14, merely meant that, as the instruction continued, “there may be infringement of a particular patent as to one claim, even if there is no infringement as to other claims in that patent,” Appx2630-2631. That did not imply that the jurors must agree that Apple infringed a particular claim or patent. Third, asking later whether “Apple willfully infringed ANY of the Asserted Claims that you found were infringed,” Appx103; OB15, does not indicate that the jury had to be unanimous regarding infringement of specific patents.

¹ Emphasis added unless otherwise specified.

Apple does not “claim[] that **any** disjunctive verdict raises a unanimity problem.” OB15 (emphasis original). As Apple explained (AB10-11), the form is flawed because it is **conjunctive**, combining all patents into a single infringement question. Apple’s argument accords with its request for “a single infringement question about each patent, even the three patents with multiple claims-in-suit.” OB15. That is what Apple seeks here, because each patent is a distinct cause of action.

Optis resurrects its forfeiture argument, OB14; *see* Appx16132-16133, but the district court rightly addressed Apple’s argument on the merits, Appx183-185, which preserves it for appeal, *LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 70 (Fed. Cir. 2012). Regardless, Apple preserved its objection. As Optis notes (OB4), the parties’ jointly proposed form **did** break out infringement by patent, Appx8264. At the charge conference, the district court *sua sponte* presented a form with a single infringement question, AB4-5; Appx2590-2591, and Apple objected that it did “not break out infringement by patent,” Appx96. Apple’s point about clarity (OB14) concerned a different issue, namely, whether to have separate literal and DOE infringement questions. Appx96; Appx8264 n.3. In post-trial briefing, Apple explained that the verdict form denied the “right to a unanimous verdict” because it “permitted the jury to reach a verdict” even if “deeply divided over ... **which patent** ... [it] believed to be infringed.”

Appx16075; *see also* Appx9271 (form “wrongly did not require the jury to be unanimous in agreeing that ***any particular patent*** ... was infringed”).

Contrary to Optis’s suggestion (OB12-13), the court lacked “discretion” to use a form depriving Apple of its unanimity right. *See Koon v. United States*, 518 U.S. 81, 100 (1996) (“A district court by definition abuses its discretion when it makes an error of law”). Optis’s cases indicate that a verdict question may subsume multiple issues regarding ***one*** patent—e.g., literal and DOE infringement, or multiple theories of invalidity—but do not approve a single question spanning multiple patents. Two cases involved only one patent, *Hoechst Celanese Corp. v. BP Chemicals Ltd.*, 78 F.3d 1575, 1577, 1581 (Fed. Cir. 1996); *RLIS, Inc. v. Cerner Corp.*, 128 F. Supp. 3d 963, 965-966 (S.D. Tex. 2015), and the third used a table to ask about each patent separately, *Structural Rubber Products Co. v. Park Rubber Co.*, 749 F.2d 707, 712, 720 (Fed. Cir. 1984).

Optis’s discussion of Apple’s cases is flawed. Optis says (OB13-14) the form used in *Hager v. Gordon* “did not allow for one of the possible outcomes,” but the Ninth Circuit noted a problem that exists equally here: the jury had no way to indicate liability for one cause of action but not the other. 171 F.2d 90, 93 (9th Cir. 1948). And in *Zhang v. American Gem Seafoods, Inc.*, the court’s remark that “some general verdicts are more general than others, encompassing multiple claims” introduced its recognition that “the key is ... whether the jury announces

the ultimate legal result *of each*” cause of action, 339 F.3d 1020, 1031 (9th Cir. 2003), which the form here did not. Under *Zhang*, a single infringement question covering multiple patents might be permissible if phrased as “Answer ‘yes’ if you unanimously find that Apple infringed every asserted patent” or “Answer ‘yes’ if you unanimously find that Apple infringed any asserted patent, in which case specify the patents you unanimously find infringed.” But here, the jury impermissibly could have answered “yes” without agreeing on which patent was infringed. That requires a new trial.

B. The ’774 Patent

Apple’s devices do not “receive” the gain or phase rotation; they construct them by combining (i) information in tables prestored on the device, (ii) precoding information and other information received through the DCI Format 2 message, and (iii) information received through a different message. AB13-16. Optis does not dispute these facts, and indeed admits that Apple devices “*derive[]*” or “*determine[]*” gain and phase rotation “*based upon*” not only what they receive from the DCI Format 2 message, but also from the “codebook index” and “tables pre-stored on the phone” (OB17-18).

Optis’s sole literal infringement argument adopts its expert’s misleading phrase “gain and phase rotation *information*” (OB16-18), which is unclaimed and undefined. But Optis later states (OB17) that “the phone *derives* a gain and phase

rotation” “[t]hrough the receipt of the ... gain and phase rotation *information*,” thereby admitting that Apple’s devices *compute* (“derive[.]”) gain and phase rotation, rather than *receive* them as literal infringement requires.

Optis pivots to DOE without defending its fallback DOE theory (regarding “customization of the signals”)—on which the district court relied. AB19-20. Instead, Optis quotes its expert’s assertion that the DCI Format 2 message ““carr[ies] a processing parameter”” and the phone ““pulls out a gain and a phase rotation based upon”” that message. OB17 (quoting Appx1453). That assertion, which Apple refuted (AB16), does not reflect the “ordinary and customary meaning” of the pertinent term “receive.” *Network-1 Technologies, Inc. v. Hewlett-Packard Co.*, 981 F.3d 1015, 1022 (Fed. Cir. 2020). It is like saying that, because a BLT is “based upon” bacon, “receiving” bacon is the same as “receiving” a BLT. Indeed, Optis’s contention does not even make sense on its own terms: a shopping cart with a package of bacon does not “carry” a BLT. To reiterate, the device does not pull out gain or phase rotation *from* the DCI Format 2 message because gain and phase rotation are not *in* the DCI Format 2 message. They are constructed from prestored tables in the device’s memory, based on multiple inputs, some of which were themselves computed on the device and some of which were received through the DCI Format 2 message and another message.

AB13-16. Even Optis's expert admitted that "constructing" is not "the same thing as" "receiving." Appx2389; *see* AB15, 18-19.

Finally, Optis cannot credibly argue (OB17-18) that Apple's devices "look up the parameters in a codebook index" that is "received" because (Optis says) that index is "in the precoding information received in the DCI Format 2 message." First, Apple devices do not look up the parameters "in" the codebook index; as Optis's next sentence acknowledges (OB18), "the phone determines the gain and phase rotation information ***based on*** that index and tables pre-stored on the phone." Second, the codebook index is not "in" (or "carried on," OB18) the DCI Format 2 message. As Apple explained based on uncontroverted evidence (AB13-14, 17-18), that index is derived from the precoding information ***and*** a prestored table ***and*** a value representing the number of codewords (computed using other values in the DCI Format 2 message) ***and*** the number of antenna ports (received through a separate message). Again, the device receives bacon and constructs the claimed BLT.²

The claim term "included" does not help Optis's argument. OB18. The pertinent term is "receive," and no reasonable jury could conclude that

² Here and elsewhere (*e.g.*, OB18), Optis cites demonstratives, which "are not evidence," Appx2618, and "are not part of the record on appeal," *Finisar Corp. v. DirecTV Group, Inc.*, 217 F. App'x 981, 981 (Fed. Cir. 2007); *see also Whitserve, LLC v. Computer Packages, Inc.*, 694 F.3d 10, 32 n.16 (Fed. Cir. 2012).

constructing gain and phase rotation from multiple pieces of information—some prestored and some received through multiple messages—is substantially the same function as “receiving” the gain and phase rotation. Those two functions are “completely the opposite.” Appx2295-2296; *see* AB15, 18-19.

C. The '332 Patent

1. Eligibility

Apple showed (AB21) that the '332 patent claims are directed to a mathematical equation and thus fail *Alice* step one. Optis faults (OB20 n.4) Apple for “barely engag[ing] with the specification.” But the step-one analysis focuses “on the claims, not the specification,” because “the level of detail in the specification does not transform a claim reciting only an abstract concept into a patent-eligible system or method.” *American Axle & Manufacturing, Inc. v. Neapco Holdings LLC*, 967 F.3d 1285, 1293 (Fed. Cir. 2020). In any event, Optis’s assertion that the specification shows that “[t]he recited equation is ... a means to achieve the end goal of more efficient UE-base station communication” (OB20) only confirms that the patent is directed to the equation. *See In re Board of Trustees of Leland Stanford Junior University*, 991 F.3d 1245, 1250 (Fed. Cir. 2021) (“[I]f a claim is directed essentially to a method of calculating, using a mathematical formula, even if the solution is for a specific purpose, the claimed method is nonstatutory.” (quotation marks omitted)).

Moreover, as Optis acknowledges (OB20 n.4), Apple’s brief (at 22) *did* explain how the specification reinforces ineligibility. Apple did not address only “the purpose of various *embodiments*” (OB20 n.4); the sentence Apple cited described “the purpose of *each* embodiment” as “to impart randomization effects.” Appx286. Apple’s reliance on the priority application was also proper, as the specification expressly incorporates it, Appx282; AB22.

At *Alice* step two, the ’332 patent claims lack an inventive concept. AB23-24. Optis argues (OB20) that the invention uses the equation to “address[] [a] prior-art problem that a UE had to decode all PDCCH decoding regions in order to find control information intended for it” by “randomiz[ing]” the “start position.” But as Apple explained (AB23), the prior art disclosed both that problem and the solution of using a randomization equation. The claims supplied only the equation—a random-number-generation method that was not only mathematical but also, as a named inventor admitted, “well known,” Appx7418, indeed, “famous,” Appx7448. Optis argues (AB21) that a named inventor’s acknowledgment that the invention “is nothing new,” Appx7418, was taken out of context, but Optis provides no context suggesting that the inventor meant something else.

Optis’s expert Madisetti’s assertion that the invention is “very technical” (OB21) is conclusory, *TQ Delta, LLC v. Cisco Systems, Inc.*, 942 F.3d 1352, 1358

(Fed. Cir. 2019), and does not identify anything *inventive* beyond applying the equation. Optis also cites (OB21-22) the nonobviousness verdict and a reexamination decision, but “[m]erely reciting an abstract idea by itself in a claim—even if the idea is novel and non-obvious—is not enough to save it from ineligibility.” *Solutran, Inc. v. Elavon, Inc.*, 931 F.3d 1161, 1169 (Fed. Cir. 2019). The reexamination decision confirms that the only possible novelty is the particular mathematical equation. *See* Notice of Intent to Issue Ex Parte Reexamination Certificate 5-7, Appl. No. 90/019,013 (Mar. 21, 2022) (distinguishing claimed “double modulo” operation from prior art “single modulo” operations).

Optis again argues forfeiture, but rightly concedes (OB19-20) that Apple preserved the patent-eligibility issue under this Court’s precedent (because it was both presented and decided at summary judgment, Appx60), and the Supreme Court approved this Court’s preservation rule, *Dupree v. Younger*, 143 S. Ct. 1382, 1388-1391 (2023). Moreover, Apple raised the issue in a Rule 50 motion. Appx9249 n.4.

2. Infringement

Optis admits (OB22-23) that, as Apple showed (AB24-25), the accused devices use a “shift” function instead of the claimed “floor(N/L)” operation, which defeats literal infringement (and Optis did not assert DOE). Madisetti’s testimony that Apple’s devices use “floor(N/L)” did not describe Apple’s source code, *see*

AB24, but rather reflected his view that the two operations are ““one and the same,”” OB22-23 (quoting Appx1649). As Madisetti acknowledged, however, that is simply “the position” that Optis has “taken” in this case, Appx1645-1646, and it contradicts the *evidence*, which shows that the two operations work differently and that “shift” is more efficient, AB24-25. As for Apple’s expert Lanning’s supposed “admission[s],” OB23, his testimony that “shift instructions are commonly used to multiply or divide” confirms that they are different operations. And Lanning did not say that “a shift can satisfy the claimed divide function” (OB23 (misquoting Appx2448-2449)); Optis apparently lifted that language from its own JMOL opposition, Appx8372.

Finally, Optis criticizes (OB23) Lanning’s testimony that “shift” is more efficient than “floor(N/L)” because he did not run a simulation, but Optis identifies no evidence that a simulation was needed. Lanning’s testimony was based on uncontradicted analysis of the number of the steps the processor used to calculate the shift and “floor(N/L)” operations. Appx2428-2431.

D. The ’284 Patent

As Apple explained (AB27-31), the subset of values “reserved for indicating transport format” in Apple’s accused devices (per the LTE specification) is smaller than the subset of values “reserved for indicating redundancy version”: the vertical transport-format column (“TBS Index”) has 29 values, whereas the vertical

redundancy-version column (“RV Index”) has 32 values. But the ’284 patent claims require the opposite: that there be more values reserved for indicating transport format than redundancy version. Appx317-318.

Instead of comparing the number of values in each column in the accused devices, Optis would define their subsets horizontally, slicing the columns so that the first 29 rows of both the TBS Index column and the RV Index column are reserved for indicating the transport format, while the last 3 rows of each column are reserved for indicating redundancy version. That arbitrary approach is unsupported by the claim language. For one thing, as Optis’s expert Mahon conceded, all values in the RV Index column—including the zeroes—“refer[] to an actual redundancy version.” Appx1513-1514. For another, Optis’s horizontal grouping implies that a TBS index of 0 is “reserved for indicating transport format,” yet an RV index of 0 is not “reserved for indicating redundancy version.”

The only justification Optis offers (OB25) for its horizontal theory of the claim is a particular table in the specification and an associated statement during the prosecution history. But as Apple explained (AB30-31), that argument (1) confirms that the issue is one of claim construction unsuitable for the jury, and (2) is inadequate, because the specification and history cannot supersede the claim’s plain language. Optis does not address those deficiencies. Optis also errs in saying that Apple’s position would exclude all embodiments; at least one

“exemplary embodiment” accords with Apple’s position, *see, e.g.*, Appx307.

Apple’s expert Buehrer would have addressed these issues further had the court not excluded his testimony regarding prosecution history, Appx2068-2069—erroneously and unfairly, given that the court allowed Optis to rely on the prosecution history.

Finally, Optis wrongly asserts that Apple forfeited its argument that Optis advanced a new claim construction to the jury. OB26-27 & n.6. Apple objected to Mahon’s belated claim construction, and Optis’s counsel’s response—which referred to the “interpretation of the claims” in light of the “tables in the patents”—confirmed that Mahon was engaged in claim construction. Appx2556-2557. Optis also incorrectly suggests that Apple acceded to Optis’s claim-construction argument when Apple stated that “the prosecution history should be fair game.” OB27 (citing Appx2109). That comment merely reflected Apple’s request for fair and equal treatment. The court first precluded Apple’s expert from using the prosecution history, Appx1506-1507; when Optis later relied on prosecution history in cross-examining Apple’s expert, Apple objected to the inconsistency and, harkening back to the court’s earlier ruling, commented, “[T]his is ... why the prosecution history should be fair game,” Appx2109-2110. As Apple noted (AB29) and Optis does not deny, after allowing Optis to rely on prosecution history in cross-examination, the court again unfairly precluded Apple from doing

so on redirect, over Apple's objection. Appx2117-2118. It was error to allow Optis to argue claim construction to the jury while forbidding Apple from responding.

E. The '833 Patent

1. Claim construction

Apple showed (AB32-36) that the asserted '833 patent claim requires that the ACK/NACK mapping begin from the last row and move row-by-row toward the first row, not (as the district court held) that only some of the ACK/NACK signals in the matrix's last row be mapped, regardless of where the mapping begins or how it proceeds.

Optis ignores that it previously agreed with Apple's construction, AB32-33, and now asserts that "from" means "in." But "from" connotes "in" only in the uncommon, inapposite context of selecting, as Optis's example illustrates (selecting "three people *from/in* the third row to come up on stage"). OB31 (emphasis original); *see* "from," <https://www.dictionary.com/browse/from> (def. 5: "used to indicate source or origin," e.g., "to take a pencil from one's pocket"). By contrast, "from" never means "*into*," and the claim language expressly refers to putting ACK/NACK signals *into* the matrix, not selecting other values that are already in the matrix, AB33-34. The only meaning of "from" that the method step

could have used is its primary one: “to specify a starting point in spatial movement.” <https://www.dictionary.com/browse/from> (def. 1).

The broader context confirms that only Apple’s construction makes sense. *See Aristocrat Technologies Australia Pty Ltd. v. International Game Technology*, 709 F.3d 1348, 1356-1357 (Fed. Cir. 2013) (rejecting construction “at odds with ... ordinary meaning” and “inconsistent with the surrounding claim language”). The multiplexed control and data signals are expressly and undisputedly mapped “from ... the first row ... to the last row.” Appx371; *see* AB35; OB29. Because the ACK/NACK signals are mapped after the control and data signals, the ACK/NACK signals risk overwriting the control and data signals. The applicants sought to “reduce the probability that the first control signals”—those mapped into the first rows of the matrix—“are overwritten by the ACK/NACK signals.” Appx7358. That is achieved by mapping the ACK/NACK signals in reverse sequence from the opposite starting point, i.e., from the last row to the first row. To convey that, the applicants inserted “from the last row” into the ACK/NACK mapping step. *Id.*

Optis counters (OB31-32) that the risk of overwriting the first control signals can be reduced “by having some ACK/NACK signals go in the last row.” But under the district court’s construction, only one ACK/NACK signal would have to be mapped to the last row; the remaining signals could still be mapped starting in

the first row, thereby potentially overwriting all but one first control signal even if other matrix locations are available for ACK/NACK mapping.

Next, Optis argues (OB29-30) that when the inventors wanted to “specif[y] a precise mapping sequence from beginning to end,” they said so expressly. But the inventors did specify that. Once the full “from ... to” phrasing was used in the preceding step (specifying that control and data signals are mapped row-by-row starting from the first row), stating “from” and the starting point (the last row) alone sufficed to indicate the ACK/NACK mapping sequence (in the reverse direction starting from the opposite starting point, thereby minimizing the risk of overwriting the first control signals). AB35. As Apple’s expert Wells stated, a skilled artisan reading the claim holistically “would understand that the plain meaning for ‘from’ is a beginning or starting point.” Appx7321(¶46).

Finally, Optis invokes Figure 6.³ But Optis admits (OB31) that Figure 6 does *not* “specif[y] in what order the mapping should occur.” Like the patent’s other figures, Appx363-366, Figure 6 is consistent with both constructions and therefore adds nothing.

2. Infringement

Regardless of how the ACK/NACK mapping must proceed under the claim, Apple’s devices do not infringe because they do not map the multiplexed control

³ Optis reproduces part of Figure 6. For a legible version, see Appx363.

and data signals row-by-row as required. As Apple explained (AB36-39), its devices map column-by-column. Like the district court, Optis focuses its response on the LTE standard, OB32-33, but Apple’s products do not support the standard’s row-by-row mapping. Optis insists (OB33) that “the standard uses the term ‘shall’ in reference to the mapping order,” but that is wrong: “shall” relates to the multiplexing, not the mapping. Appx26528 (“The control information and the data *shall* be multiplexed as follows”).

Furthermore, the source code—which determines what Apple’s devices actually do—shows column-by-column mapping. *See also* Appx2308; Appx2403-2408. As Apple explained (AB36-39), the myriad assertions by Optis’s lawyers and expert that Apple’s devices map the control and data signals row-by-row “cannot support a jury’s verdict” because they are “not supported by sufficient facts,” *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 242 (1993).

Regarding Qualcomm’s code, Optis states (OB33) that Madisetti “read the relevant exhibit as indicating that” the first control signals are “mapped before ‘data,’ with [those signals] filling a row before moving to the next.” That opinion is unsupported by Optis’s cited materials. One of the exhibits reproduced in the cited demonstrative (Appx26713) states the first control signals are mapped first, followed by data symbols, Appx26844; *see also* Appx1576-1577 (same), *cited in*

OB33-34. That statement addresses only *which* data is mapped first (the first control signals), not *where* that data is mapped first (rows or columns). Moreover, that document “doesn’t reflect the design of Qualcomm’s processors,” Appx2402; it was prepared for training on the LTE standard, not as a reference for Qualcomm’s source code, *see* Appx26795-26796. The other exhibit reproduced in that demonstrative contains a programmer’s note, *see* PX0090, which, as Apple explained (AB38), indicates only that Apple’s products map the control and data signals to a matrix, again without specifying the mapping geography. The only “source code” Optis identifies from that exhibit merely specifies discrete elements without indicating the mapping sequence. Appx26713 (quoting PX0090).

As for Intel’s code, Optis cites only a diagram—not actual source code—“list[ing] ‘row’ before ‘column.’” OB34 (citing Appx30070 (reproduced at Appx26714)). Optis cites nothing indicating that the diagram’s composition reflects the code’s procedural sequence rather than, as Optis says, merely a “list” of operations.

Finally, Optis repeats (OB34-35) Madisetti’s assertion that Wells was confused, but as Apple explained (AB37), the transcript shows that Wells was describing the mapping, not the transmission, *see* Appx2305-2311.

F. The '557 Patent

1. Claim 1: indefiniteness

Reiterating the analysis of *Optis Wireless Technology, LLC v. ZTE Corp.*, 2016 WL 1599478, at *39-40 (E.D. Tex. Apr. 20, 2016), Optis (OB37-38, 40) defends claim 1 of the '557 patent as supported by sufficiently definite structure under §112, ¶6 because it specifies that a “selecting unit” “selects a sequence” by “randomly” choosing from a “plurality of sequences” and specifying “relationships” with the “receiving unit” and “transmitting unit.” But “selecting unit” lacks a commonly understood meaning—indeed, Optis offered conflicting evidence about its meaning (AB41)—and the balance of Optis’s recitation is merely a list of functions and high-level labels for inputs, outputs, and connections, which is insufficient, *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1351-1352 (Fed. Cir. 2015) (en banc).

Optis (OB38, 40-41) tries to distinguish *Williamson* as involving “no instruction” about how the module operated or interacted, but the intrinsic evidence there supplied no less structure than here, *see* 792 F.3d at 1350-1351. Optis’s own cases (OB38) were markedly different: unlike “selecting unit,” “circuit” did “connote[] structure,” *Linear Technology Corp. v. Impala Linear Corp.*, 379 F.3d 1311, 1319-1320 (Fed. Cir. 2004), and “heuristic” had “a known meaning,” *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1300 (Fed. Cir. 2014).

Optis contends (OB38-39 & n.9) that Madisetti said “selecting unit” refers to a “specifically configured electronic circuit,” and that a patent is definite if it “describe[s] a class of structures.” But the passage Madisetti cited exceeded any class, listing myriad disparate ways to implement the unit: software *or* hardware, including various types of circuits *and* “general purpose processors.” Appx338; *see* Appx5356. Optis’s plea for deference to Madisetti’s testimony (OB40) is unwarranted, both because that testimony is plainly wrong and because the district court did not rely on it here or in *ZTE*.

Finally, Optis (OB40-41) tries to bolster the word “randomly” by pointing to the specification’s figures and asserting that an “algorithm is not required.” An algorithm *is* required because Optis adduced no evidence that this is one of “the rare circumstances where any general-purpose computer without any special programming can perform the function.” *Rain Computing, Inc. v. Samsung Electronics America, Inc.*, 989 F.3d 1002, 1007 (Fed. Cir. 2021) (quotation marks omitted); *see Williamson*, 792 F.3d at 1352 (“We require that the specification disclose an algorithm for performing the claimed function.”). The figures do not supply the missing structure because, as Apple explained (AB43), they merely put boxes around functions.

2. Claims 1 and 10: infringement

Regarding literal infringement, Optis concedes that Apple's devices select an *index*, but argues that that is the same as "selecting a sequence." OB42; *see* AB44. Optis cites the specification's reference to "select[ing] the CAZAC sequence number ... to generate a code sequence," but that language does not correspond to the limitation at issue, which describes "selecting a sequence *from a plurality of sequences that are generated* from a plurality of base sequences." Appx338; *see also* Appx336 (contrasting "select[ing] the CAZAC sequence number" with "select[ing] the code sequence ... from the code sequences").

Optis principally relies on the LTE standard, but the specific standard provision that Madisetti mentioned expressly permits the sequence to be generated from "one" sequence rather than a plurality of sequences as the claims require, Appx30215-30216; *see also* Appx26749 (from single "base sequence"), and Madisetti never testified otherwise, *see* Appx1819-1820. Again, the source code determines what Apple's devices do, and the source code, Apple's witnesses Lanning and Josiam testified, shows the devices do not practice the limitation. *See* AB45-46; Appx2347-2354; Appx2413-2418; Appx2238-2242. That evidence cannot be overcome by Madisetti's testimony merely reciting (as Optis puts it (OB43)) "terms in the code," without explaining how they are used to generate the predetermined number of sequences as claimed.

As for DOE, Optis recharacterizes (OB43-44) Madisetti’s testimony regarding function-way-result. That cannot save the testimony from its incoherence or the lack of particularized evidence connecting the claim to the accused products. AB47-48. Moreover, Optis’s recharacterization of the way—that it “associates different sequences with different reception qualities or amounts of data,” OB43—refers not to selecting, which is the pertinent claim limitation, but to grouping, which is a separate limitation, *see* Appx338.

3. Claim 10: no U.S. use

To prove U.S. use of method claim 10, Optis primarily argues (OB36) that the LTE standard mandates its use. But the claim requires two preamble groups, A and B; as Apple showed (AB48), the standard treats group B as optional, and Madisetti failed to show that Apple’s tests were conducted in locations where two preamble groups were used. *See also* Appx3402 (“T-Mobile did not appear to use this technology in Philadelphia in this test”). The word “shall” that Madisetti quoted (Appx1833-1834) concerns different aspects of the standard, not two preamble groups. Appx26378-26382.

G. Each Error In Part I.B-F Independently Requires Vacatur

Optis concedes (OB48 n.12) that a general infringement verdict is invalid if at least one of multiple theories presented to the jury was legally defective. AB49. Optis also concedes (OB45, 51) that “error as to some patents, but not others”

would require vacatur of the \$300 million judgment (assuming the Court rejects Optis’s cross-appeal); as Apple explained (AB49, 51), the unitary infringement verdict precludes remittitur.

Yet Optis maintains (OB49), incorrectly, that the liability judgment may stand as to any patent for which the Court finds no error regarding liability. Optis reasons (OB46-47) that the jury must have “found all patents infringed” because the original, now-vacated damages award equaled the amount Optis sought for all five patents combined (\$506.2 million). Optis’s inferential reasoning is unsound. The jury might well have thought it could or should award damages on *all* five patents if it answered the verdict form’s single infringement question “yes,” even though that question did not require the jurors to agree that all five patents were infringed. *See supra* p.3. The way to find out if the jury believed all patents were infringed was to ask that question (as Apple requested and was wrongly denied), not to draw tenuous inferences from a different question after the fact.

Optis cites *Walther v. Lone Star Gas Co.*, 952 F.2d 119, 126 (5th Cir. 1992), and *i4i Ltd. Partnership v. Microsoft Corp.*, 598 F.3d 831, 849-850 (Fed. Cir. 2010), for the proposition that a general verdict should stand “if there was sufficient evidence to support *any* of the plaintiff’s alternative factual theories.” OB47-48 (quotation marks omitted) (emphasis original). But even if that rule were legally sound—as explained below, it is not—it would not apply where one or

more patents lack sufficient evidence of infringement. The *Walther-i4i* rule applies to “alternative factual theories” for a single cause of action—e.g., literal and DOE infringement for a given patent, or multiple claims of a given patent, *i4i*, 598 F.3d at 849. Optis seeks to extend *Walther-i4i* across different ***causes of action***, such that a finding of infringement of one patent could justify a judgment of infringement of other patents. Optis’s cases support no such outcome. See *Ericsson, Inc. v. D-Link Systems, Inc.*, 773 F.3d 1201, 1213, 1222 (Fed. Cir. 2014) (separate general verdicts rendered as to each patent; upholding general verdict as to one patent because evidence was sufficient to find indirect infringement, even though insufficient to find direct infringement of that same patent); AB50 (discussing *Northpoint Technology, Ltd. v. MDS America, Inc.*, 413 F.3d 1301, 1305, 1311-1312 (Fed. Cir. 2005), and *Walther*, 952 F.2d at 125-126). Nor does Apple’s position “reduce *Walther*’s rule to a happenstance of pleading.” OB49. *Walther* has meaningful effect where a jury renders a general verdict covering multiple “factual theories” for a single cause of action.

Moreover, as Apple explained (AB50-51), even when limited (as it is) to alternative factual theories for a single cause of action, the *Walther-i4i* rule is contrary to *Wilmington Star Mining Co. v. Fulton*, 205 U.S. 60, 79 (1907), which held that a general civil verdict covering multiple factual bases cannot be sustained if one lacks sufficient evidence. Optis argues that *Griffin v. United States*, 502

U.S. 46, 59-60 (1991), a criminal case, superseded *Wilmington Star*, but as Apple explained (AB51 & n.2), *Wilmington Star* expressly distinguished criminal cases, and *Griffin* did not mention civil verdicts. *Wilmington Star* remains binding unless the Supreme Court overturns it, see *State Oil Co. v. Khan*, 522 U.S. 3, 20 (1997).

Optis ventures (OB50-51) that *Wilmington Star* “predated the federal statute codifying harmless-error review.” But *Wilmington Star* reflected harmless-error considerations: the Supreme Court first “conclu[ded] that **prejudicial** error was committed,” such that the Court “cannot maintain the verdict, as might be done in a criminal case, upon a general verdict of guilty upon all the counts of an indictment.” 205 U.S. at 78; see also, e.g., *Cunningham v. Springer*, 204 U.S. 647, 652 (1907) (in civil cases, “the excepting party should make it manifest that an error prejudicial to him has occurred in the trial”). The harmless-error statute did not alter preexisting civil appellate practice; rather, it “grew out of [concern] over the general course of appellate review in ... **criminal** causes.” *Kotteakos v. United States*, 328 U.S. 750, 759 (1946). In any event, the only harmlessess argument Optis advances (OB51) is its meritless contention that the original damages verdict necessarily implies that the jury found all the asserted patents infringed.

II. DAMAGES

A. The Infringement Verdict Does Not Support The Damages Verdict

Optis concedes (OB49) that the infringement verdict establishes only infringement as to at most *one* (“ANY”) patent, without specifying which. As Apple explained (AB52-57), that indeterminacy is—at the very least—fatal to the damages verdict, because the retrial jury could not know for which patent(s) it was to assess damages—and requires a new trial on liability, too, since the only solution is a liability verdict that individually identifies each patent found infringed. As Optis notes (OB61), the retrial jury was instructed to assume “*all five* patents were infringed,” but that assumption was unfounded given the undifferentiated infringement verdict, which Optis contends (OB49) can be affirmed “so long as there was sufficient evidence to support a finding of infringement of ‘any’ patent.”

Optis responds (OB60) by again asserting that the original, now-vacated damages verdict implies that the first jury found *all five* patents infringed. As explained above, that inference is unsound—and unfair, given that Apple asked that the first jury determine infringement on a patent-by-patent basis, but was rebuffed without reasoning. *Supra* p.3. Apple’s reference in closing to the value of the “five” patents (OB61) is immaterial. By that point, the district court had instructed the retrial jury—over Apple’s undisputedly preserved objection, AB56-

57—to assume infringement of all five patents, leaving Apple no choice but to proceed accordingly.

B. The Court Erroneously Admitted Evidence Regarding The Apple-Qualcomm Agreements

Optis does not address Apple’s showing that the Qualcomm-agreement evidence was unfairly prejudicial. AB61-62. That concession alone warrants a new trial.

As for comparability, Optis jams together several specious points. First, using the agreements as an “informative ... consideration” (OB61-62 (quotation marks and emphasis omitted)) is not materially different from using them “as a direct indication of a reasonable royalty rate,” for which Optis conceded they were not “sufficiently comparable.” Appx7512; *see* AB58, 60; *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1321 (Fed. Cir. 2011) (“that the entire market value was brought in as only a ‘check’ is of no moment”).

Second, although the “degree of comparability” is a factual question, whether the agreements reflected a “baseline comparability” is a question of admissibility. *Bio-Rad Laboratories, Inc. v. 10X Genomics Inc.*, 967 F.3d 1353, 1373-1374 (Fed. Cir. 2020); *see also Apple Inc. v. Wi-LAN Inc.*, 25 F.4th 960, 971-974 & n.5 (Fed. Cir. 2022) (“Sufficient comparability is a threshold requirement for licenses to be admissible.”); AB58-59. “[A]dmissibility is a legal question.” *Mathis v. Exxon Corp.*, 302 F.3d 448, 460 (5th Cir. 2002).

Third, ***because*** “royalty analysis necessarily involves an element of approximation and uncertainty,” courts “must exercise vigilance when considering past licenses to technologies ***other*** than the patent in suit and must account for differences in the technologies and economic circumstances of the contracting parties.” *VirnetX, Inc. v. Cisco Systems, Inc.*, 767 F.3d 1308, 1330 (Fed. Cir. 2014) (quotation marks and citation omitted). Optis does not deny that Qualcomm had considerable leverage over Apple and the agreements settled extensive patent, antitrust, tort, contract, and trade-secret litigation. AB58-61.

Optis argues (OB62-63) that it made supposedly “limited use[]” of the license agreement. But Optis’s ***uses*** of the agreement do not make it comparable. Moreover, Optis essentially used the agreement as an “indication” of the royalty rate, which (again) Optis admits requires comparability that its expert conceded was absent. Appx7512. Regarding the settlement agreement, Optis cites (OB63) testimony that the 40 SEPs its expert selected were “technically comparable to” the asserted patents, but offers no response to Apple’s showing (AB60) that the ***licenses*** for those SEPs reflected circumstances not ***economically*** comparable to the hypothetical negotiation here. None of Optis’s cases (OB64-65) suggests Optis carried its burden of showing baseline comparability.

C. Apple's General Profitability In The Cellular Industry Was Inadmissible

Contrary to Optis's suggestion (OB65-66), Optis's statements that Apple earns 87% of all profits in the cellphone industry concerned Apple's overall profits, without any connection to the accused features. AB62-64. Nor were those statements "passing comments," OB65-66. Optis hammered the point through its damages expert, its CEO, and its closing argument, *see* Appx3289; Appx3506, Appx3509; Appx4000; Appx8809.

Optis avers (OB67) that the jury presumably knew Apple is a "big company and dominates the cell-phone industry." That is incorrect: Samsung sells more smartphones than Apple. Appx3547-3548. And it is irrelevant because being "big" or "domina[nt]" by itself would not convey anything about Apple's high share of industry profits or connect such knowledge to the patents-in-suit.

Finally, the district court did not "caution[]" the jury against relying on those statements, and Apple's counsel did not "agree[]" that the court did. OB66-67.

Apple said the court was "exactly right" to recognize a "distinction" between "profits as to the accused devices" and general profits in the "entire market."

Appx3507-3508. But the court did not direct the jury to disregard Apple's profits in the entire market; its limiting instruction referred only to "overall profits ... as a company, a company-wide profit," i.e., including non-cellular markets.

Appx3509. The court's subsequent actions confirm that understanding. Optis

continued to cite the 87% cellular-industry figure to the jury, Appx4000 (over Apple’s standing objection, Appx3936), and the court denied Apple’s new-trial motion on this issue without suggesting that the instruction mitigated the prejudice, Appx245-246.

D. Evidence From The Parties’ Confidential Settlement Negotiations Was Inadmissible

Regarding Optis’s use of inadmissible settlement negotiations, Optis again argues forfeiture (OB68-69), but is again incorrect. As Apple explained (AB66-67), Apple opposed *all* use of the settlement evidence during the damages retrial and insisted only that, if Optis were allowed to use it, Apple should also be able to. *See also* Appx8899. It was Optis that first revealed the settlement discussions to the damages jury (in its opening), Appx3208-3209; *cf.* Appx3224-3225 (Apple responding to Optis’s opening), and it was Optis that first introduced evidence of the settlement discussions (through its first witness), Appx3246-3250.

Optis wrongly asserts (OB68) that Apple “agree[d] to submit the parties’ respective compliance with their FRAND obligations to the court in a bench trial”; as is discussed further below, it was Optis that unilaterally exercised its right to a bench trial on those issues, which Apple merely acknowledged, *see infra* pp.36-41. And as Apple explained (AB64-65), the settlement evidence was irrelevant to the retrial jury’s task, which was *not* to determine whether Optis made FRAND-compliant offers during actual negotiations (*contra* OB68), but to determine a

FRAND royalty based on a hypothetical negotiation, *see* Appx217-218; *infra* pp.36-40, 41 n.4. Apple consistently maintained that position; it was Optis that sought to muddle the two distinct issues. *See* Appx8899; *infra* pp.36-41.

Consequently, the exception to Federal Rule of Evidence 408 recognized in *In re MSTG, Inc.* does not apply, because “the settlement itself or its interpretation” was not “at issue,” 675 F.3d 1337, 1345 (Fed. Cir. 2012). *See* OB69. *Optis Cellular Technology LLC v. Apple Retail U.K. Ltd.*, 2022 WL 14915910, [2022] EWCA (Civ.) 1411 (Eng.), is thus likewise irrelevant. *See* OB68-69.

Optis also asserts (OB69) that Apple “threatened to introduce negotiating evidence,” but it cites nothing showing Apple’s supposed threat. Indeed, the document Optis cites shows the opposite: “while Apple believes that the right answer is for *neither* party to offer *any* evidence of their licensing negotiations, *if* Plaintiffs are allowed to tell the jury any part of the negotiation history, ... *then* Apple should be able to offer contextualizing evidence regarding ‘the totality of the conduct.’” Appx8899.

Finally, the generic instructions that the jury not “set[] an example” or impose “a fine or a penalty,” Appx3946-3947, Appx3184; *see also* Appx3255-3256, given far outside the context of the settlement evidence, could not ensure that the jury disregarded the settlement evidence, *see Uniloc*, 632 F.3d at 1320-

1321 (curative instruction specific to the admissible damages evidence was insufficient).

INTRODUCTION TO RESPONSE TO CROSS-APPEAL

Dissatisfied with its \$300 million lump-sum judgment, Optis asks this Court to restore the first verdict of \$506.2 million as the first installment of running royalties. But the district court rightly concluded that “the reliability of the [first] verdict” was in “serious doubt” because of how Optis chose to try its case, and “justice” required a new damages trial. Appx144. Optis has not remotely shown an abuse of discretion in that ruling.

The infirmity of the first damages verdict arose from Optis’s declaration that the asserted patents were essential to practicing the LTE standard—a fact that Optis fully exploited in its effort to prove infringement by Apple’s devices that support LTE. Optis’s standard-essential declaration subjected its patents to an irrevocable obligation that they be licensed on fair, reasonable, and non-discriminatory (“FRAND”) terms. Ordinarily, such a commitment must be presented to the jury for its determination of a reasonable royalty. To avoid the consequences of its FRAND obligation in this case, however, Optis sought a declaratory judgment that Apple had somehow forfeited the right to rely on Optis’s irrevocable FRAND obligation. As was its right, Optis unilaterally elected to try its declaratory judgment claim not to the jury, but in a subsequent bench trial.

Apple, for its part, requested that, regardless of the outcome on Optis's declaratory judgment claim, the jury should be told that the asserted patents were FRAND-committed and that any damages award must reflect Optis's "actual [F]RAND commitment." *Ericsson*, 773 F.3d at 1235. The district court originally decided, over Apple's repeated objection, that the FRAND issues would be the subject of the bench trial and the first jury should not be told of Optis's FRAND obligations or even hear the word "FRAND." The court acknowledged that this exclusion of FRAND from the jury trial created a procedural conundrum and that, as a result, a new damages trial might be required if the court decided the declaratory judgment claim against Optis: "What bothers me about that is ... if the Court finds there is a FRAND obligation and if the Court finds [Optis] has not been relieved of that FRAND obligation in some way because of the conduct of [Apple], then we're going to have a damages number that has no relation to FRAND whatsoever and a bench finding that there's a FRAND obligation on [Optis]. And so I may well have to declare—I may well have to order a new trial on damages." Appx7855-7856.

The district court's concern proved prescient. After the first jury returned its \$506.2 million verdict, the district court concluded that it lacked jurisdiction over Optis's declaratory judgment claim. Although the court initially found that Apple failed to preserve its request that the jury hear evidence of Optis's FRAND

obligations and be instructed that those obligations were pertinent to setting a reasonable royalty, Apple's motion for new trial explained in detail that its position was in fact fully preserved. The district court ultimately concluded that justice required a new damages trial where a second jury would hear about Optis's FRAND obligations and be instructed on the relevance of those obligations to its task of determining a reasonable royalty.

Optis has not shown any abuse of discretion in the district court's decision to grant a new damages trial. Apple's inability in the first trial to offer evidence of Optis's FRAND obligations and request legally correct instructions regarding their effect on a damages award was plainly prejudicial. Indeed, the sharp difference in the verdicts' dollar amounts and royalty structure—a \$506.2 million running royalty (effectively a verdict in the billions of dollars in light of Optis's request for an ongoing royalty) versus a \$300 million lump sum—itself proves the harm that Apple suffered from the first trial. Nor do Optis's forfeiture arguments have any merit. Apple articulated its position clearly and repeatedly, and in any event the district court was within its discretion in concluding that justice required a new damages trial.

Even were the Court to agree with Optis that the district court abused its discretion in granting a new damages trial, the Court certainly should not “reinstate the original damages judgment.” OB10. For one thing, as explained above, the

liability verdict must be vacated, and therefore *no* damages verdict can stand. But even if the liability verdict stands, the Court should do no more than vacate the order granting a new damages trial and remand for further proceedings, including adjudication of Apple’s other grounds for a new damages trial, which the district court never addressed because it decided to grant the new damages trial based on the exclusion of FRAND. *See* Appx183. Finally, the recent UK ruling that an Apple license to Optis’s *entire worldwide* patent portfolio should cost \$56 million, plus interest, *see supra* p.1, highlights the gross overreach of Optis’s damages demands for the five U.S. patents in this case.

STATEMENT OF THE CASE FOR CROSS-APPEAL

A. Pretrial Proceedings

“It is uncontested that the Asserted Patents are FRAND-encumbered SEPs.” Appx137; *see* Appx4995(¶¶142-143). Consequently, Apple contended throughout the case that any damages award for infringement of the asserted patents had to be FRAND. *See, e.g.,* Appx15301, Appx15309. Optis, however, did its level best to ensure that the jury never heard even a whisper about its FRAND obligations—and, as explained below, initially it succeeded.

To begin, Optis’s complaint included a request for a declaration that Apple “may no longer raise a FRAND defense in the US.” Appx4996; *see* Appx137-138. Whereas most issues, including damages for any patent infringement, were to be

tried to the jury, Optis had the unilateral “right” to try its declaratory judgment claim, Count VIII, to the bench because it was equitable. Appx7852. And “[d]uring pretrial proceedings ..., Optis deliberately elected to” try its declaratory claim to the bench, including Optis’s allegation that “Apple had acted in bad faith and engaged in holdout” and thus lost its right to a FRAND royalty. Appx139 (quoting Appx7849); *see also, e.g.*, Appx15289; Appx7849-7850; Appx9023-9024. “Nonetheless, ... [u]nder the guise of evidence relevant to willful infringement, Optis argued that evidence of Apple’s bad faith and holdout during pre-suit negotiations should still be presented to the jury.” Appx139.

The district court “rejected Optis’s attempt to have it both ways—i.e., to use FRAND as both a sword (in the jury trial against Apple) and a shield (in a subsequent bench trial as to Optis’s own conduct).” Appx139-140; *see* Appx7851 (Optis “either waives its right to a jury trial and tries them to the Court, or it asserts its right to a jury trial and tries those issues in its declaratory judgment action to a jury.”); Appx7852 (“You don’t get to do it both ways.”). The court decided to hold Optis to its election to try Count VIII to the bench, “includ[ing] any issues of whether Optis complied with its FRAND obligations” and “any allegations of bad faith or holdout by Apple.” Appx7851-7852; *see also* Appx7853.

However, the court went further, and forbade the parties from presenting any evidence regarding Optis’s FRAND obligations even to the extent they bore on the

setting of a reasonable royalty for patent infringement damages: “[W]e’re going to have a non-FRAND jury trial for patent infringement where” the experts are “not going to testify about FRAND as a part of the damages case when the jury has no idea what FRAND is.” Appx7854-7855. The court said it did not even “want to hear the word ‘FRAND’ or ‘fair,’ ‘reasonable,’ or ‘non-discriminatory’ in front of the jury.” Appx7852; *accord* Appx7855.

The court voiced its concern with this structure at the pretrial hearing: “What bothers me about that is ... if the Court finds there is a FRAND obligation and if the Court finds the Plaintiff has not been relieved of that FRAND obligation in some way because of the conduct of the Defendant”—i.e., rejects Count VIII—“then we’re going to have a damages number that has no relation to FRAND whatsoever and a bench finding that there’s a FRAND obligation on the Plaintiff. And so I may well have to declare—I may well have to order a new trial on damages” to obtain a FRAND-compliant damages verdict. Appx7855-7856. The court subsequently reiterated that the trial structure created a “disjointed predicament” between the bench trial and the first jury trial. It “necessarily meant that the jury was not presented with evidence regarding ... whether the requested reasonable royalty was FRAND-compliant.” Appx140; Appx142.

B. Apple Repeatedly Expresses Its Position That The Jury Should Hear Evidence And Be Instructed Regarding Optis's FRAND Obligations

Apple repeatedly voiced its objection to the exclusion of Optis's FRAND obligations from the first jury trial because of their essential relevance to the determination of a reasonable royalty. First, in the pretrial order, Apple stated that "any reasonable royalty damages should be consistent with Plaintiffs' obligation to license the patents-in-suit on [FRAND] terms and conditions" "regardless of whether Apple has 'forfeited' ... its right to a FRAND rate" in the pre-suit licensing negotiations. Appx15301, Appx15309. In the same pretrial order, Optis itself noted that "Apple is asserting" that Optis's "FRAND commitment ... impacts damages" and that "Apple's expert ... alleges that ... PanOptis' damages request ... violates FRAND." Appx15290-15291. Concurrently with the pretrial order, Apple requested that the court instruct the jury as follows: "you must ensure that any reasonable royalty determination you make cannot exceed the amount permitted under Plaintiffs' FRAND obligations." Appx8970; *see also, e.g.*, Appx8965, Appx8971-8972, Appx8974. Optis opposed that instruction. *See* Appx8970.

Second, Apple repeated its position at the pretrial conference, where it stated that "the damages request" must be "consistent with FRAND." Appx9052. Optis acknowledged this too, stating that Apple "intend[s] to argue to the jury that our

damages number is not FRAND.” Appx7824. Apple told the court that “the issue of whether the damages request is proper or consistent with FRAND ... is a separate issue from all these contract questions ... with respect to good faith, bad faith” implicated by the declaratory judgment claim that Optis had elected to try to the bench. Appx9052.

Third, during the jury trial, Apple made an “offer of proof on evidence regarding the FRAND commitment and related obligations that it would have presented had the Court permitted.” Appx9056-9057. Apple explained that its submission was necessary “because of Plaintiffs’ election to try their declaratory judgment claim in a trial before the Court,” which led “the Court [to] determine[] that no FRAND issues will be tried before the jury.” *Id.*

C. The First Jury Trial And The Bench Trial

Consistent with the court’s pretrial rulings, in the first jury trial no FRAND evidence was admitted, and no FRAND instructions were given. *See, e.g.*, Appx2612-2650 (jury instructions). The jury awarded Optis \$506,200,000 as a running royalty for past sales, i.e., between February 25, 2019, and August 3, 2020. Appx104-105.

At the subsequent bench trial, Apple argued, in its proposed findings of fact and conclusions of law, that the “damages awarded by the jury is not FRAND” and therefore the “damages verdict must be vacated and a retrial held at least as to

damages.” Appx9194, Appx9197. Apple noted that, “[a]s the Court observed at the Pre-Trial Conference, this outcome is the consequence of Plaintiffs’ own strategic choice to structure their case with a jury trial followed by a bench trial on their FRAND claim.” Appx9197; *see also* Appx9195-9196.

The district court ultimately ruled that it lacked subject-matter jurisdiction over Optis’s declaratory judgment claim (Count VIII), Appx124; Appx140, a ruling Optis did not cross-appeal. The court also concluded, however, that “Apple ha[d] waived its ability to challenge the jury verdict as inconsistent with Optis’s FRAND obligations.” Appx124-125. The court said that Apple had “failed ... to raise any FRAND issue with the Court at the pretrial conference ... or at the charge conference,” to “ask[] the Court for instructions to the jury consistent with that issue,” or “object to” the court’s “rul[ing] that Count VIII—and corresponding FRAND issues—would be tried to the bench.” Appx125-126 & n.4. As summarized above, that conclusion contradicted the record. Apple asserted its position at every turn, and the court itself anticipated that, if it rejected Count VIII but the jury awarded damages, the damages award would not reflect FRAND and therefore a new damages trial would be needed. *See supra* pp.36-40.⁴

⁴ The court also said that Apple “fail[ed] to raise a commensurate [FRAND] counterclaim or affirmative defense.” Appx124. That was legally incorrect; Apple’s contention that any damages award had to comply with FRAND was not in the nature of a counterclaim or an affirmative defense because it neither sought

D. The District Court Grants A New Damages Trial

Apple then moved for a new trial because, *inter alia*, the damages verdict was not FRAND-compliant as required. Recounting the history just described, Apple explained that it had preserved its objection. Appx16011-16025. The district court granted Apple's motion in part and ordered a new trial on damages.

In ruling on Apple's motion, the court remarked that "Optis created this disjointed predicament by electing to try [Count VIII] to the bench instead of the jury." Appx142; *see also* Appx143. The court also reiterated its criticism of Apple for "staying strategically silent during pretrial proceedings" instead of "objecting" that it "would not be able to present its damages analysis regarding FRAND to the jury." Appx143. But, as explained above, Apple did ask to present FRAND evidence to the jury at every turn, and the court correctly anticipated the implications of the trial structure it was adopting.

In any event, the court ultimately and properly concluded that "justice" required "a new trial regarding damages" because the jury rendered "a very large damages award" that "does not necessarily represent a FRAND royalty."

Appx144; *see* Fed. R. Civ. P. 61. The court explained that, because the patents

affirmative relief, *see, e.g., Co-Efficient Foundation v. Woods*, 171 F.2d 691, 694 (5th Cir. 1948), nor claimed exculpation even if Optis proved its case-in-chief, *see Shell Oil Co. v. United States*, 896 F.3d 1299, 1315 (Fed. Cir. 2018). Optis's cross-appeal brief does not argue that Apple was somehow required to present a counterclaim or affirmative defense.

“are FRAND-encumbered SEPs, any royalty awarded must be FRAND.”

Appx144. And, as the court correctly recognized, “the reliability of the verdict” was in “serious doubt” because “the jury never [heard] any evidence that Optis’s patents were in fact FRAND-encumbered, ... how that concept impacted a fair damages award in this case,” or “any evidence as to what royalties would or could be FRAND,” nor received any “FRAND ... instructions.” *Id.*

Accordingly, a new damages trial was held, during which the parties presented FRAND evidence and argument, *see infra* pp.50-51, and the court gave FRAND instructions, *see* Appx211-212; Appx3948-3949, Appx3951. The second jury rendered a much smaller damages award: \$300 million as “a lump-sum for past *and future* sales.” Appx217-218.

STANDARD OF REVIEW

“In the Fifth Circuit, ‘the decision to grant or deny a motion for a new trial is within the discretion of the trial court and will not be disturbed absent an abuse of discretion or a misapprehension of the law.’” *Sulzer Textil A.G. v. Picanol N.V.*, 358 F.3d 1356, 1363 (Fed. Cir. 2004) (quoting *Prytania Park Hotel v. General Star Indemnity Co.*, 179 F.3d 169, 173 (5th Cir. 1999)).

SUMMARY OF THE ARGUMENT FOR CROSS-APPEAL

A. The district court was correct that the total exclusion of Optis’s FRAND commitment from the first trial rendered the first damages verdict

unreliable and therefore warranted a new trial. Because the asserted patents are undisputedly FRAND-encumbered, any royalty awarded had to be FRAND. The court, however, conducted a non-FRAND trial, in which the jury heard no evidence of Optis's FRAND commitment or how that commitment would affect a reasonable royalty, and received no instruction that any damages award had to reflect Optis's FRAND obligations. In fact, by invoking *Georgia-Pacific* factor 5, the jury instructions contravened FRAND. Consequently, as the district court correctly recognized, the jury's very large damages award did not necessarily represent a FRAND royalty. The court certainly did not abuse its discretion in reaching that conclusion.

B. The erroneous exclusion of FRAND evidence and instructions prejudiced Apple. Given that Optis's FRAND commitment is central to the assessment of reasonable-royalty damages, its complete exclusion from the first trial could not have been harmless. As the district court recognized, the damages verdict did not reliably reflect FRAND. The damages retrial eliminates any doubt about the prejudicial effect of excluding FRAND from the first trial. Optis's FRAND commitment was the focus of the second trial, and the resulting verdict was a \$300 million lump sum for all sales—past and future—which was much lower than the first jury's award of \$506.2 million for past sales only.

Optis argues that the exclusion of FRAND had no material effect on the damages verdict because the first jury heard evidence regarding the apportionment of value between the infringing and non-infringing features of Apple's products and was instructed that the damages had to reflect that apportionment. That is irrelevant. As this Court made clear in *Ericsson*, apportionment is a separate and distinct requirement from FRAND; the apportionment requirement applies even where the patents are not FRAND-committed. 773 F.3d at 1232, 1335.

Nor did the district court impermissibly create a bright-line rule requiring a new trial merely because the jury did not hear the acronym "FRAND." *Ericsson* disavowed bright-line rules for how to construct FRAND instructions, but unequivocally required that the jury be informed of an applicable FRAND commitment. Here, the first jury undeniably was not informed of FRAND in name *or in substance*. Consequently, the court's decision to grant a new trial was well within its discretion.

C. Optis's forfeiture argument fails. Apple preserved its objection by asserting its position at every turn in the district court. In the pretrial order, in its proposed jury instructions, at the pretrial conference, and through its offer of proof during trial, Apple informed the district court that any reasonable royalty award had to be FRAND-compliant and that the jury's determination of damages was separate from the issues regarding the parties' pre-suit conduct to be tried to the

bench. The district court expressly anticipated that the split between the bench and jury trials and the complete exclusion of FRAND from the jury trial would require a new trial on damages if, as ultimately happened, the court rejected Optis's declaratory judgment claim after the bench trial. There was nothing more Apple could or should have said to preserve its position that the first jury should have heard evidence and been instructed on Optis's FRAND commitment.

Moreover, even if Apple had not timely raised its challenge—though it did—the district court would have had wide discretion to order a new trial anyway, given that the first jury rendered “a very large damages award” and there was no assurance it reflected Optis's FRAND obligation, Appx144. Under these circumstances, the court did not abuse its discretion in ordering a new trial.

ARGUMENT IN RESPONSE TO CROSS-APPEAL

A. The District Court Acted Within Its Discretion In Determining That The Total Exclusion Of FRAND From The First Trial Was Erroneous And Warranted A New Trial

A court may grant a new trial to remedy “an erroneous evidentiary ruling,” *Jordan v. Maxfield & Oberton Holdings, L.L.C.*, 977 F.3d 412, 417 (5th Cir. 2019), or “errors in jury instructions,” *Aero International, Inc. v. U.S. Fire Insurance Co.*, 713 F.2d 1106, 1113 (5th Cir. 1983). A new trial is warranted if “it is reasonably clear that prejudicial error has crept into the record or that substantial justice has not been done.” *Jordan*, 977 F.3d at 417. Here, the district court found that its

complete exclusion of “FRAND evidence and instructions to the jury” was erroneous and undermined “the reliability of the verdict,” preventing “justice [from being] done,” Appx144. That finding was correct, and certainly not an abuse of discretion.

As the court recognized, because the asserted patents are undisputedly “FRAND-encumbered SEPs, any royalty awarded must be FRAND.” Appx144 (citing *Ericsson*, 773 F.3d at 1229-1231).⁵ Therefore, the court was required to “inform the jury what [FRAND] commitments have been made and of its obligation (not just option) to take those commitments into account when determining a royalty award.” *Ericsson*, 773 F.3d at 1231. But the court conducted “a non-FRAND jury trial,” Appx7854, in which the jury never received any “FRAND ... instructions” and “never [heard] any evidence that Optis’s patents

⁵ Although *Ericsson* involved a differently phrased commitment to license on “reasonable and non-discriminatory (‘RAND’)” terms, 773 F.3d at 1209, Optis does not deny that its reasoning applies to Optis’s FRAND commitments as well. See Howard, *FRAND, RAND, & the Problem at Hand: Increasing Certainty in Infringement Damages for Standard-Essential Patents*, 27 B.U. J. Sci. & Tech. L. 204, 208 (2021) (“courts generally consider the two terms interchangeably at the damages calculation phase, with the addition of a ‘fairness’ element not noticeably altering analysis”); Miadzvedskaya, *Encouraging FRAND-Ly Negotiations: A Comparison of the United States and European Approaches to Allowing Injunctive Relief in Cases Involving FRAND-Encumbered Standard-Essential Patents*, 18 Wash. U. Global Stud. L. Rev. 723, 732 n.51 (2019) (“There appears to be little, if any, distinction between a commitment to license SEPs on fair, reasonable, and nondiscriminatory (FRAND) vers[u]s reasonable and nondiscriminatory (RAND) terms.”).

were in fact FRAND-encumbered, ... how that concept impacted a fair damages award in this case,” or “any evidence as to what royalties would or could be FRAND,” Appx144; *see, e.g.*, Appx2612-2650 (jury instructions).

In fact, the instructions to the first jury contravened FRAND principles. The court was required “not to instruct the jury on any [*Georgia-Pacific*] factors that are not relevant” to a FRAND-compliant royalty. *Ericsson*, 773 F.3d at 1235. Yet the instructions included *Georgia-Pacific* factor 5, i.e., the commercial relationship between the licensor and licensee. *See* Appx2601-2602. That factor “is irrelevant”—indeed, “contrary to [F]RAND principles”—“because [Optis] must offer licenses at a ***non-discriminatory*** rate” consistent with FRAND. *Ericsson*, 773 F.3d at 1230-1231.

Consequently, the jury rendered “a very large damages award” that erroneously did “not necessarily represent a FRAND royalty.” Appx144. Under these circumstances, the court was firmly within its discretion to find that the erroneous exclusion of FRAND evidence and instructions seriously prejudiced Apple and therefore warranted a new damages trial.⁶

⁶ Optis contends (OB60 n.18) that, on remand, “the district court should have the opportunity after the jury trial to reconsider whether to grant Optis’s requested declaration that it met its FRAND obligation.” There is no basis for such reconsideration. The district court declined to decide that issue for lack of subject-matter jurisdiction, Appx124, Optis did not develop any argument cross-appealing that ruling (its passing request in a footnote certainly is insufficient), and that

B. The Erroneous Total Exclusion Of FRAND From The First Jury Trial Was Prejudicial

Optis challenges the grant of a new trial principally on the ground that the exclusion of FRAND was harmless: the jury instructions supposedly “encompassed [FRAND] principles, despite not invoking ‘FRAND,’” and “[n]o material FRAND evidence was excluded.” OB55, 57. Optis’s challenge is meritless for at least four reasons.

1. The notion that FRAND evidence and instructions would not have affected the damages award is conclusively refuted by the simple fact that the subsequent use of FRAND evidence and instructions *did* affect the damages award. After hearing FRAND evidence and receiving FRAND instructions during the retrial, *see* Appx211-212; Appx3948-3949, Appx3951, the second jury rendered a far smaller damages verdict: a \$300 million lump sum for all sales—past and future—in contrast to the first award of \$506.2 million only for past sales, a period that covered only about 18 months and left Apple potentially exposed to *future* licensing fees of billions of dollars over the remaining life of the patents. *See Galloway v. Horne Concrete Construction*, 524 F. App’x 865, 872 (4th Cir. 2013) (“comparison” between amount of damages verdict and amounts shown on

issue—namely, whether Optis complied with its FRAND obligations *during pre-suit negotiations*—is independent of the issue resolved by the district court in granting a new damages trial: whether the jury’s determination of royalty damages complied with Optis’s FRAND obligations. *See supra* pp.36-40, 41 n.4.

excluded evidence was “more than sufficient to conclude that the erroneous evidentiary rulings substantially influenced the jury’s verdict, and therefore were not harmless,” requiring new trial); *Global Petrotech, Inc. v. Engelhard Corp.*, 58 F.3d 198, 202 (5th Cir. 1995) (erroneous exclusion of “highly relevant” evidence that “could have a substantial impact on the jury’s determination ... was sufficiently prejudicial ... as to require a new hearing”).

Optis counters that, in the retrial, Apple “did not focus on that [FRAND] evidence—much less argue that Optis failed to comply with its commitment, or that Apple had kept *its* commitment.” OB59 (emphasis original). But as explained, the parties’ ***conduct during pre-suit negotiations*** was separate from and irrelevant to the issue of the reasonable royalty. *See supra* pp.36-40, 41 n.4. Apple did not, and did not need to, rely on evidence regarding those negotiations. But on the ***relevant*** issue—how Optis’s FRAND commitment constrained the determination of a FRAND-compliant royalty as infringement damages—Apple most certainly presented FRAND evidence and argument during the damages retrial. In fact, that was the central issue of the retrial.

Optis readily acknowledged this at the time. During voir dire, Optis’s counsel told the venire panel: “you are going to hear a lot of evidence about” FRAND. Appx3119-3120. Apple’s counsel followed by telling the panel: “You are going to hear a lot about FRAND because, again, that’s the only issue in the

case.” Appx3128. The district court’s preliminary statement to the jury and Apple’s opening statement discussed FRAND extensively, again previewing for the jury that FRAND would be the central issue. *See, e.g.*, Appx3182-3183, Appx3214-3215, Appx3221-3222, Appx3228, Appx3230. As forecasted, Apple then presented, through both direct and cross-examination, a substantial amount of evidence regarding Optis’s FRAND commitment and how it affected the assessment of a reasonable royalty. *See, e.g.*, Appx3271-3272; Appx3545-3546, Appx3548, Appx3550, Appx3556-3559, Appx3563-3567, Appx3626-3629, Appx3634, Appx3641-3642; Appx3737, Appx3803-3805, Appx3811-3895. Finally, Apple’s closing statement focused on FRAND, summarizing the considerable FRAND evidence that had been presented to the jury. *See, e.g.*, Appx3971-3972, Appx3975, Appx3978-3997.

2. Optis’s contention (OB59-60) that the district court granted a new trial without identifying “any specific evidence that would have changed the outcome” defies the record. During the first trial, Apple did not “refer[] cursorily to categories of evidence about Optis’s FRAND commitment” that it would have submitted. OB59. Rather, Apple filed a five-page offer of proof detailing the FRAND evidence it would have submitted had it been permitted, including numerous exhibits, expert testimony, and fact testimony. *See* Appx9057-9061.

Apple’s motion for new trial summarized that proffer, Appx16018, which in turn became the basis for the district court’s ruling granting a new trial, Appx144.

3. As for the failure to give FRAND instructions—itsself an error warranting new trial—Optis begins with the unsupported assertion that the court failed to “point[] to any specific flaws in the instructions.” OB54 (quotation marks omitted). The flaw was obvious: the absence of any jury instruction that the royalty must reflect Optis’s FRAND obligations. Before trial, Apple proposed just such an instruction: “you must ensure that any reasonable royalty determination you make cannot exceed the amount permitted under Plaintiffs’ FRAND obligations.” Appx8970; *see supra* p.39. Then, in its motion for new trial, Apple argued that the court’s failure to give such an instruction was erroneous. *See, e.g.*, Appx16012 (“the jury should have ... been instructed on the effect of Plaintiffs’ FRAND commitments”). In its order granting a new trial, the court agreed that “the absence of ... instructions” that “any royalty awarded must be FRAND” meant that “the verdict does not necessarily represent a FRAND royalty.” Appx144.

Optis contends that the absence of a FRAND instruction was not prejudicial in “the context of what happened at trial.” OB54-55 (quotation marks omitted). According to Optis (OB58), “the instructions addressed all the FRAND factors on which the jury heard evidence.” That is wrong because, as explained, the jury

heard *no* FRAND evidence—Apple was forbidden from offering its FRAND evidence in the first trial. *See* Appx144. So, even if the first jury had somehow been informed about FRAND principles, applying those principles to a record devoid of FRAND evidence could not have yielded a FRAND-compliant royalty.

Optis notes that the instruction given reflected the two apportionment principles established in *Ericsson*: that “the patented feature must be apportioned from all the unpatented features reflected in the standard” and that “the patent owner’s royalty must be premised on the value of the patented feature, not any value added by the standard’s adoption of the patented technology.” OB55-56 (quoting Appx2649). Optis also asserts (OB58-59) that both sides’ experts supplied testimony related to apportionment. But as *Ericsson* made clear, apportionment is a separate issue from FRAND. *Ericsson* held that the two apportionment instructions must be given whenever “dealing with SEPs,” *regardless* of whether they are FRAND-encumbered. 773 F.3d at 1232, 1235; *see also Commonwealth Scientific & Industrial Research Organisation v. Cisco Systems, Inc.*, 809 F.3d 1295, 1301-1305 (Fed. Cir. 2015) (“*Ericsson* did not conflate the two terms,” SEP and FRAND; “We ... reaffirm that reasonable royalties for SEPs generally—and not only those subject to a RAND commitment—must not include any value flowing to the patent from the standard’s

adoption,” i.e., apportionment).⁷ Optis conspicuously ignores the separate and additional FRAND-specific requirement established in *Ericsson*: the court must “instruct the jury adequately regarding [the plaintiff’s] actual RAND commitment.” 773 F.3d at 1235; *see also id.* at 1209, 1230-1231, 1233-1234. That command dooms Optis’s argument, because the district court undisputedly did not instruct the first jury as to Optis’s actual FRAND commitment or how that commitment affected the determination of a reasonable royalty (just as it did not allow any evidence on those issues).

Optis also points to the court’s instruction that the jury should determine “‘the amount’” the parties “‘would have agreed upon at the time the infringement began if both had been reasonably and voluntarily trying to reach an agreement,’” OB56 (quoting Appx2648), but that is also insufficient to save the first verdict. On its face, that instruction again did not require that the damages award be FRAND, i.e., “fair,” “reasonable,” and “non-discriminatory,” Appx109; *see* OB56 n.15—consistent with the court’s directive there be no mention of “‘fair,’ ‘reasonable,’ or ‘non-discriminatory’ in front of the jury,” Appx7852. Moreover, Optis disregards

⁷ That is all Apple meant by its argument that the apportionment principle applies to SEPs “‘*regardless* of whether there is a FRAND commitment.’” OB59 n.16 (quoting Appx15300) (emphasis original). In trying to use Apple’s argument against it, Optis again misunderstands the difference between apportionment and FRAND.

the fact that, by including *Georgia-Pacific* factor 5, the instructions given ***contradicted*** FRAND principles. *See supra* p.48.

4. Finally, Optis argues that the court “create[d] a bright-line rule requiring a new trial where a jury never heard the acronym FRAND,” contrary to *Ericsson*’s supposed “disavow[al of] any ‘bright line rules’ about instructions in FRAND cases.” OB56 (quoting Appx144). That mischaracterizes both *Ericsson* and the district court’s ruling. *Ericsson* declined to adopt a bright line only in that it held “that there is [no] modified version of the *Georgia-Pacific* factors that should be used for all [F]RAND-encumbered patents.” 773 F.3d at 1231-1232. *Ericsson* did, however, hold that juries “must” be “adequately” informed of the plaintiff’s “actual RAND commitment” and of their duty to “take those commitments into account when determining a royalty award.” *Id.* at 1231, 1235. The district court initially erred by omitting any instructions and evidence relating to FRAND from the first jury trial, but then correctly recognized the need for a new trial; at a minimum, that recognition was not an abuse of discretion.

C. Apple Preserved Its FRAND Objection To The First Damages Verdict, And The District Court Was Free To Grant A New Trial Regardless

Optis argues (OB53-54) that Apple forfeited its challenge to the non-FRAND trial and that the “district court should have held Apple to its forfeiture.”

That is incorrect—once again, as with Optis’s many other unfounded forfeiture arguments—and also irrelevant.

1. A party preserves its objection to the exclusion of evidence by “inform[ing] the court of its substance by an offer of proof,” Fed. R. Evid. 103(a)(2); *United States v. Kay*, 513 F.3d 432, 455 (5th Cir. 2007), and Apple did that, *see* Appx9055-9061; *supra* p.40.

Further, contrary to Optis’s contention (OB53), Apple did object to the exclusion of FRAND before the first trial, and it did not “stay[] strategically silent [on the issue] during pretrial proceedings.” As detailed above, Apple consistently argued—in the pretrial order, in its proposed jury instructions, at the pretrial conference, and through its offer of proof during trial—that any royalty damages had to be FRAND-compliant and that the damages issue was separate from the issues regarding the parties’ pre-suit conduct to be tried to the bench. *See supra* pp.36-40. The record of the pretrial conference shows that the district court fully understood that the split between the bench and jury trials and the complete exclusion of FRAND from the jury trial would require a new trial on damages if the court ruled against Optis at the bench trial, *see* Appx7855-7856; *supra* pp.37-38—as the court ultimately did. Further, as the court also acknowledged both at the pretrial conference and in granting the new trial, it was “Optis [that] chose to structure this trial that way.” Appx7852-7853; *see also* Appx7857; Appx142-143.

Given Apple’s consistent advocacy that any damages verdict had to be FRAND-compliant, Optis’s unilateral election to try Count VIII to the bench, and the court’s full awareness of the implications of that election, there was nothing more Apple could or should have said to preserve its position on the FRAND damages issue.⁸

2. In any event, even if Optis were right about forfeiture, that would be irrelevant. What matters is whether the district court abused its discretion in ordering a new damages trial before a jury that received FRAND evidence and instruction relating to its task of determining a reasonable royalty. Even if Apple had said nothing about the issue, the “district court ha[d] discretion to consider new theories raised for the first time in a post-trial brief.” *LaserDynamics, Inc. v.*

⁸ Thus, Optis is wrong (OB57) that “[t]he only instructional error Apple purported to identify below was the court’s directive to consider *Georgia-Pacific* factor 5.” Apple opposed the jury’s determination of royalty damages without consideration of FRAND, which included both the exclusion of FRAND evidence and the corresponding omission of FRAND principles from the instructions. Apple’s objections were definitively ruled on before trial, and nothing prevented the district court from granting a new trial afterwards. *See* Fed. R. Evid. 103(b) (“Once the court rules definitively on the record—either before or at trial—a party need not renew an objection or offer of proof to preserve a claim of error for appeal.”); *United States v. Jimenez*, 256 F.3d 330, 343 (5th Cir. 2001) (“[E]xcluded evidence is sufficiently preserved for review when the trial court has been informed as to what counsel intends to show by the evidence and why it should be admitted [This] rule has particular force when the trial court makes clear that it does not wish to hear further argument on the issue.” (quotation marks omitted)); *Mathis v. Exxon Corp.*, 302 F.3d 448, 459 (5th Cir. 2002) (“The pre-trial objection is sufficient to preserve the error for appellate review.”).

Quanta Computer, Inc., 694 F.3d 51, 70 (Fed. Cir. 2012) (quoting *Quest Medical, Inc. v. Apprill*, 90 F.3d 1080, 1087 (5th Cir. 1996)). In fact, the court could have granted a new trial even if Apple had not presented the ground in its new trial motion (though it did). *See* Fed. R. Civ. P. 59(d) (“the court may grant a timely motion for a new trial for a reason not stated in the motion”); *Kelly v. Moore*, 376 F.3d 481, 483-484 (5th Cir. 2004).⁹

Optis has not remotely met its burden of proving that the court abused its discretion. As the court explained, given that the jury rendered “a very large damages award” and that “any royalty awarded must be FRAND, ... the absence of FRAND evidence and instructions to the jury cast[] serious doubt on the reliability of the verdict.” Appx144; *see supra* pp.42-43.

CONCLUSION

On Apple’s appeal, the Court should reverse or vacate the judgment of liability and/or damages. On Optis’s cross-appeal, the district court’s decision granting a new trial should be affirmed.

⁹ There is no question that Optis had “notice and an opportunity to be heard” regarding the grounds on which the court granted a new trial (Fed. R. Civ. P. 56(d)), as Apple raised them in its new trial motion and Optis briefed them.

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